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ABSTRACT

The report is an approximation of industrial and occupational needs for 1970-80 for 225 industries and 445 occupations in Massachusetts based on industry and employment records for 1960-71, occupational employment levels as reported in the 1970 Decennial Census, and the national industry/occupational matrix. The occupational demand detailed in the report's two lengthy tables is based on anticipated changes in industrial employment and replacement demand likely to arise due to deaths, retirements, and transfers of experienced workers to other occupations. Industry employment trends indicate: manufacturing will suffer the greatest decrease in employment; employment in contract construction will increase substantially; employment in transportation, communications, public utilities, wholesale and retail trade, finance, insurance, real estate, and public administration will grow moderately; and employment in agriculture, forestry, and fisheries will decline. From the occupational standpoint, the growth in the professional, technical, and kindred occupations will be substantial; the net demand in the clerical field will be the largest among the nine major occupational divisions; demand for workers in the service worker field will increase over the 1970-80 period; and among the remaining occupational divisions, all except operatives and kindred workers and farmers and farm workers will show positive growth rates. (Author/JR)

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Manpower Requirements for Massachusetts

By Occupation, By Industry

1970 - 1980

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY

JOHN D. CROSIER, DIRECTOR

APRIL 1974

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MANPOWER REQUIREMENTS

FOR

MASSACHUSETTS

by Occupation, by Industry

1970 - 1980

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PREFACE

Occupation and industry projections for Massachusetts concerning the period 1970-1980 are included in this volume which updates Massachusetts Manpower Requirements to 1975 and Manpower Requirements for Massachusetts by Occupation, by Industry 1970-1976.

The Massachusetts projections are closely tied to the National projections of the Bureau of Labor Statistics, the basic assumptions underlying these projections (see Appendix A) being accepted in the projections for Massachusetts. For example, one BLS assumption is "While all levels of government will try to meet a wide variety of domestic requirements, more funds will be channeled to state and local government." If this assumption is not realized, projections of state and local government employment and the occupations that are concentrated in this section of the economy may suffer correspondingly.

While the projections do take into account special proposed circumstances that will modify the directions of the past (known proposed closings, new developments, etc.) the projections should be viewed essentially as a continuation of past trend (1960-1971) relationships between the nation and the state. It would, therefore, be more accurate to view the specific numbers as indicators of relative magnitude and central tendencies. In other words, the data should be used as indicators of probable direction and relationships rather than as forecasts.

In preparation are companion volumes containing occupation-industry projections for the Boston, Springfield-Chicopee-Holyoke, and Worcester Standard Metropolitan Statistical Areas.

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INTRODUCTION

The projections of Manpower Requirements 1970-1980 for Massachusetts, designed to provide current occupational profile and projected comprehensive occupational requirements information, should be helpful to state and local vocational education authorities for use in planning training facilities and the development of vocational education curricula. The data will also be useful to state and local manpower planners, Manpower Area Planning Councils, the Work Incentive Program, Labor Market Advisory Councils and others concerned with labor demand.

The Interim Manpower Projections Program represents another step in satisfying the need for current and projected industrial and occupational employment information. The Division of Employment Security, in cooperation with the Bureau of Labor Statistics, will continue to develop methods that will produce State and SMSA manpower projections. These new methods will incorporate the development of a state industry/occupation employment matrix system, results of the Occupational Employment Statistics Program, current employment information and more sophisticated projection methods.

This interim report is an approximation of industrial and occupational needs for 1970-1980 for 225 industries and 445 occupations based on industry employment records 1960-1971 and occupational employment levels as reported in the 1970 Decennial Census, and the national industry/occupation matrix detailed in Tomorrow's Manpower Needs.

The occupational demand detailed in the attached tables is based on anticipated changes in industrial employment and replacement demand likely to arise due to deaths, retirements and transfers of experienced workers to other occupations. For methodology employed to develop the projections see Appendix B, Methodology page 7.

Attached is Table 1 showing total employment, by industry adjusted for class of worker for the years 1970 and 1980, and the amount of change 1970-1980 while Table 2 details the average annual number of job openings by occupation during the 1970-1980 period.

The economic assumptions underlying the industry projections are detailed in Appendix A, page 6.

NOTE:

This project began prior to the start of the energy crises. Since the project is long-range and the effects of the energy crises on employment in 1980 are unknown, no allowance for the impact of the energy crises was made as the models used for these projections have little in the way of history to help in predicting how our economy if beset by shortages, will behave. Therefore, when reviewing and utilizing the data, the reader must note this omission of allowance for energy shortages.

INDUSTRY EMPLOYMENT TRENDS

In 1970 there were about 2,360,100 jobs in Massachusetts. By 1980 an estimated 194,900 new jobs will have been created bringing the estimated total employment to 2,555,000 in 1980--an annual growth rate of 0.8 percent. Most of these jobs will require some special vocational education; many will require high levels of education. But there will also be many jobs available, at least on an entry level, for those with minimal preparation.

The shift in the composition of Massachusetts employment currently in force will be even more pronounced in the future. This shift away from goods production and into the service sectors will present new problems in manpower planning and training.

As detailed below, the largest gain due to industry growth will be in the service industries where the gain was also much greater in the 1960-1970 period than overall employment growth. Most of the expansion will come from the medical and educational sectors which are labor intensive and little affected by labor-displacing technological advances.

INDUSTRY SECTOR	EMPLOYMENT		NET CHANGE 1970-1980	
	1970	1980	Amount	Per Cent
(Figures represented in 000's)				
Total-All Industries	2,360.1	2,555.0	194.9	8.3
Agriculture, Forestry, Fisheries	23.2	20.4	-2.8	12.1
Mining	1.0	0.8	-0.2	20.0
Contract Construction	133.0	160.2	27.2	20.5
Manufacturing Industries	656.4	611.4	-45.0	-6.9
Durable Goods	367.3	351.5	-15.8	-4.3
Nondurable Goods	289.1	259.9	-29.2	-10.1
Transportation, Communications, Public Utilities	131.0	145.0	14.0	10.7
Wholesale and Retail Trade	516.6	580.5	63.9	12.4
Finance, Insurance, Real Estate	133.8	149.7	15.9	11.9
Services	646.4	756.3	109.9	17.0
Medical Services	191.6	236.8	45.2	23.6
Educational Services	173.5	206.4	32.9	19.0
Public Administration	118.9	130.5	11.6	9.8

The Manufacturing sector is projected to display the largest decrease. Productivity gains plus a decline in the rate of growth will contribute to this decrease. Within this sector, nondurable goods industries, weighted down by some traditionally declining industries, is expected to suffer the largest losses. The durable goods industries affected by the closing of the Boston Navy Yard and cutbacks in defense contracts, will also show a substantial downturn.

Employment in the Contract Construction industry division is expected to increase at a substantial rate. The growth of capital investment by the private and public sector, the continued expansion in the construction of condominiums and an increase in other housing requirements, should provide the catalyst for an increased employment volume.

Employment in the other major industry divisions--Transportation, Communications, Public Utilities; Wholesale and Retail Trade; Finance, Insurance and Real Estate; and Public Administration--is expected to grow at a moderate rate, while the number of jobs in Agriculture, Forestry and Fisheries and Mining will decline.

MANPOWER REQUIREMENTS

The total demand for manpower during the 1970-1980 span of years is the sum of the demand arising from industry growth and that needed for replacement of workers who leave the labor force because of death or retirement. The ten-year growth component will amount to approximately 202,000 while more than four times this number-954,000-will be needed as replacements. On the average, therefore, approximately 115,570 additional workers will be required each year during the ten-year span.

	ESTIMATED ANNUAL JOB OPENINGS		
All Occupations	Net Demand	Due To Growth	Due To Death and Retirement
Total - All Occupations	115,570	20,150	95,420
Professional, Technical, Kindred	23,480	7,530	15,950
Managers, Officials, Proprietors	11,270	4,090	7,180
Sales Workers	10,510	2,320	8,190
Clerical and Kindred Workers	33,860	5,960	27,900
Craftsmen, Foremen and Kindred	7,920	1,070	6,850
Operatives and Kindred Workers	9,540	-2,870	12,410
Service Workers	17,310	2,180	15,130
Laborers, except Farm and Mine	1,610	140	1,470
Farmers and Farm Workers	70	-270	340

Growth in the professional, technical and kindred division will be substantial over the next decade. Demand will be particularly strong for medical and health workers, teachers, and accountants. Teachers are, however, expected to face competition for jobs.

Expansion of coverage under insurance-type programs and a rising standard of living will spur demand for workers in the medical and health

fields. A sizeable replacement need, increased emphasis on early childhood education, special programs for disadvantaged children may result in larger enrollments and smaller student-teacher ratios.

The emergence of new educational programs is expected to increase demand for teachers. In addition, the demand for engineers is expected to show improvement over the 1970-1980 period.

Strong replacement requirements make the net demand in the clerical field the largest among the nine major occupational divisions. To the replacement need must be added the requirement for additional workers stemming from the increasing demand for reports, studies and analyses. Increased paper work will accompany the expansion of large and complex organizations while routine clerical work may be reduced through increased use of computers or other business machines. Many clerical workers especially secretaries, receptionists and others dealing with the public will not be affected by automation.

Overall, demand for workers in the service worker field is expected to increase over the 1970-1980 period. A large proportion of this increase flows from a sizeable replacement need. Within this group, occupations in health, food, and cleaning service activities are projected to grow the most rapidly.

Most of the future employment increase will stem from increased urbanization, the added medical care required for growing and aging population, the more frequent use of service facilities as income levels rise and more women take jobs outside the home.

Among the remaining occupational divisions, all except operatives and kindred workers and farmers and farm workers are expected to show positive growth rates. A dampening of demand for semi-skilled and other operatives in textile and other factory activities will significantly reduce the need for such workers. However, the overall net demand in these divisions will be positive as replacement needs will more than offset the anticipated decline.

For estimates of annual demand, by occupation, due to both growth and replacement needs see Table 2, page 16.

APPENDIX A

ECONOMIC CONDITIONS

A number of general assumptions are implicated in the projections which were made within the framework of the national economic assumptions developed by the U. S. Bureau of Labor Statistics published in the U. S. Economy in 1980, Bulletin 1673, page 2.

The projections about the Massachusetts Economy are based on the following assumptions:

1. The international climate will improve.
2. Armed forces strength will drop back to a pre-Viet Nam level.
3. There will not be a radical change in the institutional framework of the American economy.
4. Economic, social, technological and scientific trends will continue.
5. Fiscal and monetary policies will strive to strike a balance between lower unemployment rates and price stability.
6. While all levels of government will try to meet a wide variety of domestic requirements, more funds will be channeled to state and local governments.
7. Fertility rates will be lower than they have been in the recent past.
8. The problems arising from the energy crisis, although not completely solved, will be at a manageable state.

APPENDIX B

METHODOLOGY

Industry Projections

In order to make occupational projections it was necessary to project employment for 225 industry groups. A historical series of annual average employment for the twelve-year period 1960-1971, for farm and nonfarm wage and salary sectors was first compiled. Historical data for the major component-nonfarm wage and salary employment were available from Employment and Wage Reports (ES-202) of the Massachusetts Division of Employment Security supplemented by detail on the noncovered sector from the Bureau of Labor Statistics (BLS) Current Employment Series (CES), published and unpublished data. The 1970 Decennial Census was used as a data source where industry data were weak and unavailable from the above two sources. In these situations a Census/ES-202 ratio was used in making the projections to 1980.

Initial preparation of the input involved selection of the variables and the appropriate time frame. The variables chosen were state employment regressed against either national employment or time-the years 1960 through 1971.

A linear least-square regression model was employed in making the projections. The method initially assumes a straight-line trend over time. The equation of the regression line is expressed mathematically as $Yc = a + b(x)$ where:

Yc = State employment (computed)
a = Constant
b = Slope of the line
x = Time

Industry employment estimates for 1980 were then computed and tested for statistical significance.

Occupational Projections

The initial step was to make industry employment estimates consistent with the Bureau of Labor Statistics total employment concept. Utilizing the methodology and factors detailed in A Technical Memorandum Concerning State Industry Employment Estimates, private wage and salary employment, by industry, was adjusted to a one-person one-job concept by first accounting for persons employed but not at work (unpaid absences). The second refinement was made by deducting the secondary job of multiple job holders. The employment components for each industry were then summed to obtain total employment by industry for 1970 and 1980.

Additional refinements to the adjusted wage and salary employment estimates were made. These refinements involved augmenting the employment estimates to include self-employed unpaid family workers, "special estimates," and government workers. Government workers involved in activities unique to government are classified in the public administration industry. Government workers in agencies engaged in activities also carried on by private industry, such as shipbuilding, education and medical services, are classified in the appropriate industry category.

The distribution of federal government employment by industrial activity was obtained from Massachusetts Division of Employment Security Report of Employment and Wages (ES-202). The distribution of state and local government employment was based on the Compendium of Public Employment, October 1970 (Table XXI), the Report of Employment and Wages (ES-202), and the 1970 Decennial Census.

After the industry employment estimates on a total employment concept had been developed for 1970 and 1980, projected occupational employment requirements were then derived. The technique involved applying the national industry/occupation matrix as detailed in Tomorrows Manpower Needs, Vol IV, to the industry estimates for 1980. These results were then summed to yield total employment by occupation for 1980. The occupational distribution for 1970 is derived from the 1970 Decennial Census for Massachusetts.

Because the 1970 and 1980 industry and occupation estimates were calculated from different sources, the totals of the categories differed. The difference between the Total All Industries and Total All Occupations categories was calculated and prorated according to the percentage detailed for each occupation. The amount and percentage change between 1970-1980 along with the annual amount was then calculated.

Replacement Needs

The growth in employment requirements for each occupation is but a first step in estimating the overall occupational requirements. To growth estimates must be added replacement needs expected as a result of deaths, retirements, and transfers of experienced workers to other occupations. Separation rates for each occupation for Massachusetts based on the 1970 census were furnished by the Bureau of Labor Statistics. Applying the separation rates to the employment estimates produced annual replacement needs to 1980. Adding the replacement needs to the demand due to growth gives net demand for the 425 detailed occupations.

TABLE I

TOTAL EMPLOYMENT BY INDUSTRY ADJUSTED FOR CLASS OF WORKER
1970 - 1980
MASSACHUSETTS

INDUSTRY TITLE	EMPLOYMENT 1970	EMPLOYMENT 1980	NET CHANGE 1970 - 1980
	in 000's		
TOTAL, ALL INDUSTRIES	2,360.1	2,555.0	194.9
Agriculture, Forestry, Fisheries	23.1	20.4	-2.7
Agriculture	19.6	17.5	-2.1
Agriculture Production	12.7	8.6	-4.1
Agriculture Services, Exc Hort	2.2	3.8	1.6
Horticultural Services	4.7	5.1	0.4
Forestry	0.4	0.5	0.1
Fisheries	3.1	2.4	-0.7
Mining	1.0	0.8	-0.2
Metal Mining	0.0	0.0	0.0
Coal Mining	0.0	0.0	0.0
Crude Petroleum and Nat. Gas	*	0.0	*
Nonmetallic Mining, Quarrying	1.0	0.8	-0.2
Construction	132.9	160.3	27.4
General Building Contractors	38.3	48.9	10.6
General Contractors, Exc. Bldg.	29.2	30.9	1.7
Special Trade Contractors	65.4	80.5	15.1
Manufacturing	656.4	611.4	-45.0
Durable Goods	367.3	351.5	-15.8
Ordnance	17.3	11.9	-5.4
Lumber and Wood Prod.	4.9	4.8	-0.1
Logging	0.2	0.2	0.0
Sawmill, Plannng Mill, Mill Wk.	1.9	1.8	-0.1
Misc. Wood Prod.	2.8	2.8	0.0
Furniture and Fixtures	10.3	9.3	-1.0
Stone, Clay, Glass Prod.	11.9	12.8	0.9
Glass and Glass Prod.	0.5	0.7	0.2
Cement, Concrete, Plaster	2.8	3.8	1.0
Structural Clay Prod.	0.2	0.1	-0.1
Pottery and Related Prod.	0.2	0.2	0.0
Misc. Nonmetallic, Stone	8.2	8.0	-0.2
Primary Metal Prod.	19.1	18.4	-0.7
Blast Furnaces, Steel Wks.	1.6	1.3	-0.3
Other Primary Steel	8.1	6.8	-1.3

TABLE I (Continued)

INDUSTRY TITLE	EMPLOYMENT 1970	EMPLOYMENT 1980	NET CHANGE 1970 - 1980
	in 000's		
Primary Aluminum Ind.	1.8	1.9	0.1
Other Primary Nonferrous	7.6	8.4	0.8
Fabricated Metal Prod.	41.0	39.5	-1.5
Cutlery, Other Hardware	11.8	10.4	-1.4
Fabricated Metal Prod.	8.0	8.3	0.3
Screw Machine Prod.	4.6	4.2	-0.4
Metal Stamping	3.6	3.3	-0.3
Misc. Fabricated Metal Prod.	13.0	13.3	0.3
Machinery, Exc. Electrical	73.7	73.0	-0.7
Engines and Turbines	6.5	7.3	0.8
Farm Machinery, Equip.	0.1	0.2	0.1
Construction Machines	1.6	0.8	-0.8
Metalworking Machinery	15.5	11.3	-4.3
Office, Accounting Machines	1.6	2.2	0.6
Electronic Computing Equip.	12.7	18.2	5.5
Machinery, Nec.	35.6	33.0	-2.6
Electrical Machinery	94.2	89.5	-4.7
Household Appliances	1.3	1.3	0.0
Radio, TV, Commun. Equip.	29.2	27.8	-1.4
Electrical Machinery, Nec.	63.7	60.4	-3.3
Transportation Equip.	32.4	23.5	-8.9
Motor Vechicle Equip.	5.9	8.0	2.1
Aircraft and Parts	9.3	6.3	-3.0
Ship, Boat Building, Repair	16.4	7.9	-8.5
Railroad Equipment	0.0	0.0	0.0
Mobile Dwelling	*	*	*
Cycles, Misc. Transp. Equip.	0.8	1.3	0.5
Professional, Scientif. Instr.	35.0	40.5	5.5
Scientific Instruments	13.4	13.0	-0.4
Optical, Health Serv. Supplies	9.4	11.0	1.6
Photo Equip. and Supplies	9.7	14.5	4.8
Watches and Clock Devices	2.5	2.0	-0.5
Misc. Manufacturing	27.5	28.5	1.0
Nondurable Goods	289.1	259.9	-29.2
Food and Kindred Products	37.0	32.0	-5.0
Meat Products	4.2	4.2	0.0
Dairy Products	7.2	5.9	-1.3
Canning and Preserving	4.1	3.9	-0.2
Grain Mill Products	0.7	0.7	0.0
Bakery Products	7.9	7.1	-0.8
Confectionary Products	4.8	2.5	-2.3
Beverage Industries	4.5	4.1	-0.4

TABLE I (Continued)

INDUSTRY TITLE	EMPLOYMENT 1970	EMPLOYMENT 1980	NET CHANGE 1970 - 1980
	in 000's		
Misc. Food Preparation	3.6	3.6	0.0
Tobacco Manufacturing	0.2	0.1	-0.1
Textile Mill Products	32.0	24.9	-7.1
Knitting Mills	5.2	5.8	0.6
Dyeing, Finishing Textiles	6.4	6.9	0.5
Floor Coverings	1.2	0.5	-0.7
Yarn, Fabric Mills	12.3	5.7	-6.6
Misc. Textile Mill Products	6.9	6.0	-0.9
Apparel, Textile Products	50.3	44.2	-6.1
Apparel and Accesories	41.2	35.8	-5.4
Misc. Fabricated Products	9.1	8.4	-0.7
Paper and Allied Products	35.1	34.0	-1.1
Pulp, Paper, Paperboard Mills	11.1	9.4	-1.7
Paperboard Container, Boxes	10.1	9.8	-0.3
Misc. Paper and Pulp Product	13.9	14.8	0.9
Printing and Publishing	45.0	48.2	3.2
Newspaper Publishing, Printing	15.0	15.2	0.2
Printing, Publishing Exc. News	30.0	33.0	3.0
Chemical and Allied Products	19.1	19.1	0.0
Industrial Chemicals	2.1	1.4	-0.7
Plastics, Synthetics	6.8	7.2	0.4
Synthetic Fibers	*	0.1	0.1
Drugs and Medicines	1.4	1.7	0.3
Soaps and Cosmetics	4.4	4.8	0.4
Paints and Varnishes	1.3	1.3	0.0
Agricultural Chemicals	0.1	0.1	0.0
Misc. Chemicals	3.0	2.5	-0.5
Petroleum and Coal Products	0.8	0.6	-0.2
Petroleum Refining	*	0.0	*
Misc. Petroleum, Coal Prod.	0.8	0.6	-0.2
Rubber, Misc. Plastic Products	33.3	33.5	0.2
Rubber Products	16.2	12.1	-4.1
Misc. Plastic Products	17.1	21.4	4.3
Leather Products	36.6	23.3	-13.3
Leather Tanning, Finishing	4.6	3.4	-1.2
Footwear, Except Rubber	28.9	16.2	-12.7
All Other Leather Products	3.1	3.7	0.6
Transportation, Other Pub. Util.	131.0	145.0	14.0
Transportation, Total	69.4	74.0	4.6
Railroads, Railway Express	7.2	6.0	-1.2
Local Interurban Transit	17.9	19.9	2.0

TABLE I (Continued)

INDUSTRY TITLE	EMPLOYMENT 1970	EMPLOYMENT 1980	NET CHANGE 1970 - 1980
		in 000's	
Street Railways, Bus Line	13.3	15.1	1.8
Taxicab Service	4.6	4.8	0.2
Trucking and Warehousing	30.2	33.0	2.8
Trucking Service	28.1	30.5	2.4
Warehousing and Storage	2.1	2.5	0.4
Water Transportation	3.2	2.3	-0.9
Air Transportation	7.4	8.6	1.2
Pipelines	*	0.1	0.1
Transportation Services	3.3	4.2	0.9
Communications, Util. Sanitary	61.7	71.1	9.4
Communications	34.6	42.0	7.4
Telephone (Wire and Radio)	31.3	38.4	7.1
Telegraph, Misc. Commun. Serv.	0.8	0.6	-0.2
Radio Broadcasting, TV	2.5	3.0	0.5
Utilities, Sanitary Services	27.0	29.1	2.1
Electric Light and Power	13.4	14.4	1.0
Electric-Gas Utilities	1.1	1.6	0.5
Gas, Steam Supply Systems	5.3	4.8	-0.5
Water Supply	2.6	3.6	1.0
Sanitary Services	4.6	4.7	0.1
Other Utilities, Nec.	*	0.0	*
Wholesale and Retail Trade	516.6	580.5	63.9
Wholesale Trade	119.7	130.3	10.6
Wholesale Exc. Misc. Whls.	82.3	88.9	6.6
Motor Vehicles and Equip.	7.1	8.1	1.0
Drugs, Chemicals, Allied Prod.	7.5	8.8	1.3
Dry Goods and Apparel	8.6	9.6	1.0
Food and Related Prod.	19.1	16.6	-2.5
Farm Prod-Raw Material	0.7	0.3	-0.4
Electrical Goods	12.0	13.0	1.0
Hardware, Plumbing	5.4	6.0	0.6
Machinery Equip., Supplies	21.9	26.5	4.6
Misc. Wholesale Trade	37.3	41.6	4.3
Metals and Minerals, Nec.	4.0	4.4	0.4
Petroleum Products	4.1	4.6	0.5
Scrap and Waste Material	2.9	3.2	0.3
Alcholic Beverages	3.2	3.7	0.5
Paper and Its Products	4.8	5.3	0.5
Lumber, Constr. Materials	4.0	4.5	0.5
Wholesale, Nec.	14.3	15.9	1.6
Retail Trade	396.9	450.3	53.4
Building Materials	16.8	18.5	1.7

TABLE I (Continued)

INDUSTRY TITLE	EMPLOYMENT 1970	EMPLOYMENT 1980	NET CHANGE 1970 - 1980
	in 000's		
Lumber, Building Material	11.9	12.7	0.8
Hardware and Farm Equipment	4.9	5.8	0.9
General Merchandise, Total	77.6	83.0	5.4
Department, Mail Order	55.4	55.3	-0.1
Limited Price Stores	9.3	10.8	1.5
Vending Machine Operators	1.8	3.2	1.4
Direct Selling	5.5	7.0	1.5
Misc. Merchandise Stores	5.6	6.7	1.1
Food and Dairy Stores	70.6	80.8	10.2
Grocery Stores	55.3	63.8	8.5
Dairy Prod. Stores	3.1	3.7	0.6
Retail Bakeries	4.9	4.6	-0.3
Food Stores, Nec.	7.3	8.7	1.4
Auto Dealers, Gas Stations	42.9	48.9	6.0
Motor Vehicle Dealers	19.2	22.5	3.3
Tire, Battery Accessory	2.8	3.4	0.6
Gasoline Service Stations	19.7	21.2	1.5
Misc. Vehicle Dealers	1.2	1.8	0.6
Apparel and Accessories	27.1	32.5	5.4
Apparel, Accessories Stores	20.9	25.7	4.8
Shoe Stores	6.2	6.8	0.6
Furniture and Appliances	16.9	20.5	3.6
Home Furnishing Stores	9.7	10.4	0.7
Appliance, TV, Radio Stores	7.2	10.1	2.9
Eating and Drinking Places	90.9	105.3	14.4
Misc. Retail Trade Stores	54.2	60.8	6.6
Drug Stores	13.8	14.4	0.6
Liquor Stores	7.1	8.1	1.0
Farm and Garden Supply Stores	1.1	1.4	0.3
Jewelry Stores	3.2	3.6	0.4
Fuel and Ice Dealers	8.0	7.4	-0.6
Retail Florists	3.1	2.9	-0.2
Misc. Retail Trade Stores	17.9	23.0	5.1
Finance, Insurance, Real Estate	133.8	149.7	15.9
Finance, Total	52.5	62.0	9.5
Banking	38.1	46.3	8.2
Credit Agencies	5.5	5.8	0.3
Stock Brokers, Investment	8.9	9.9	1.0
Insurance	60.0	66.5	6.5
Real Estate, Re. Law Insurance	21.4	21.3	-0.1

TABLE I (Continued)

INDUSTRY TITLE	EMPLOYMENT 1970	EMPLOYMENT 1980	NET CHANGE 1970 - 1980
	in 000's		
Services, Total	646.4	756.3	109.9
Hotels and Lodging Places	17.3	21.1	3.8
Hotels and Motels	15.1	18.7	3.6
Lodging Places, Exc. Hotels	2.2	2.4	0.2
Other Personal Services	42.2	39.2	-3.0
Laundry, Cleaning	17.7	14.2	-3.5
Beauty Shops	13.3	14.5	1.2
Barber Shops	4.6	3.0	-1.6
Shoe Repair Shops	0.7	0.6	-0.1
Dressmaking Shops	0.9	1.4	0.5
Other Personal Services	5.0	5.5	0.5
Misc. Business Services	65.7	78.0	12.3
Advertising	2.8	3.0	0.2
Business Management Services	5.2	9.2	4.0
Commercial R. and D.	4.2	8.1	3.9
Computer Programming	3.2	6.2	3.0
Detective and Protective	3.0	5.9	2.9
Employment, Temporary Help	3.6	7.3	3.7
Services Building	10.4	13.2	2.8
Other Misc. Business Services	33.3	25.1	-8.2
Automobile Repair Services	14.9	17.0	2.1
Auto Repair	9.5	10.3	0.8
Auto Services, Exc. Repair	5.4	6.7	1.3
Other Repair Services	8.3	8.1	-0.2
Electrical Repair Shop	3.1	2.8	-0.3
Other Repair Services	5.2	5.3	-0.1
Motion Pictures, Theaters	5.9	6.2	0.3
Misc. Entertainment	11.1	13.6	2.5
Bowling Alleys, Billiards	1.6	1.4	-0.2
Misc. Entertainment	9.5	12.2	2.7
Medical, Other Health	191.6	236.8	45.2
Offices of Physicians	14.8	17.5	2.7
Offices of Dentists	9.4	12.1	2.7
Offices of Chiropractors	0.2	0.2	0.0
Hospitals	122.2	139.9	17.7
Convalescent Institutions	27.9	46.3	18.4
Health Practitioners, Nec.	3.6	2.2	-1.4
Health Services, Nec.	13.5	18.6	5.1
Legal Services	14.5	15.0	0.5
Educational Services	173.5	206.5	33.0
Elementary, Secondary	100.2	124.4	24.2
Colleges and Universities	63.2	70.1	6.9

TABLE I (Continued)

	EMPLOYMENT		NET CHANGE
	1970	1980	1970 - 1980
	in 000's		
Libraries	4.7	6.0	1.3
Educational Services, Nec.	5.4	6.0	0.6
Museums, Art Galleries, Zoos	1.3	2.2	0.9
Nonprofit Organizations	41.6	54.5	12.9
Religious Organizations	15.0	14.8	-0.2
Welfare Services	14.5	18.2	3.7
Residential Welfare	1.1	1.7	0.6
Nonprofit Membership	11.0	19.8	8.8
Private Households	25.9	18.3	-7.6
Other Prof. Related Services	32.4	39.8	7.4
Eng. and Arch. Services	16.4	18.8	2.4
Accounting, Auditing	9.0	10.7	1.7
Misc. Professional Services	7.0	10.3	3.3
Government, Total 1/	118.9	130.5	11.6
Federal Public Admin.	50.4	54.7	4.3
Postal Service	24.1	23.6	-0.5
Federal Public Admin.	26.3	31.1	4.8
State Public Admin.	19.0	21.3	2.3
Local Public Admin.	49.4	54.5	5.1

1/ Government workers involved in activities unique to government are classified in the public administrative industry. Government workers in agencies engaged in activities also carried on by private industry such as shipbuilding, education, and medical services, are classified in the appropriate industry category.

TABLE 2

Average Annual Number of Job Openings, by Occupation
During 1970-1980 Period
Massachusetts

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
TOTAL, ALL OCCUPATIONS	115,570	20,150	95,420
Professional, Technical, Kindred	23,480	7,530	15,950
Engineers, Technical	1,620	710	910
Engineers, Aero-Astronautic	10	*	10
Engineers, Chemical	20	*	20
Engineers, Civil	290	100	190
Engineers, Electrical	380	190	190
Engineers, Industrial	360	190	170
Engineers, Mechanical	150	40	110
Engineers, Metallurgical	30	10	20
Engineers, Mining	*	*	*
Engineers, Petroleum	*	*	0
Engineers, Sales	30	-20	50
Engineers, Other	350	200	150
Life and Physical Scientists	350	170	180
Agricultural Scientists	10	*	10
Atmospheric, Space Scientists	10	10	*
Biological Scientists	70	20	50
Chemists	200	110	90
Geologists	*	*	*
Marine Scientists	*	*	*
Physicists and Astronomers	60	30	30
Life, Physical Scientists Nec	*	*	0
Mathematical Specialists	130	70	60
Actuaries	30	20	10
Mathematicians	30	20	10
Statisticans	70	30	40
Engineers, Science Technicians	1,630	950	680
Agri, Biolog Tech Exc Health	50	20	30
Chemical Technicians	70	30	40
Draftsmen	230	70	160
Electrical, Electronic Tech	430	310	120
Industrial Engineering Tech	40	*	40
Mathematical Techn	0	0	0
Mechanical Engineering Tech	20	10	10
Surveyors	50	20	30
Engineering, Science Tech Nec	740	490	250

*Footnotes appear on last page of Table 2

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Medical Workers, Exc Tech	5,180	1,150	4,030
Chiropractors	*	*	*
Dentists	250	90	160
Dietitians	130	20	110
Optometrists	10	*	10
Pharmacists	170	20	150
Physicians, MD and Osteopaths	440	40	400
Podiatrists	-10	-20	10
Registered Nurses	3,790	820	2,970
Therapists	380	160	220
Veterinarians	20	20	*
Other Medical and Health	*	*	0
Health Technol and Tech	1,440	560	880
Clinical Lab Technol, Tech	610	240	370
Dental Hygienists	250	110	140
Health Record Technol, Tech	110	50	60
Radiologic Technol, Tech	190	40	150
Therapy Assistants	20	10	10
Other Health Technol, Tech	260	110	150
Technicians, Exc Health	280	170	110
Airplane Pilots	30	20	10
Air Traffic Controllers	20	10	10
Embalmers	10	*	10
Flight Engineers	10	10	*
Radio Operators	30	10	20
Tool Programers, Numerical	10	*	10
Other Technicians Exc Health	170	120	50
Computer Specialists	600	320	280
Computer Programers	380	170	210
Computer Systems Analysts	190	130	60
Other Computer Specialists	30	20	10
Social Scientists	360	220	140
Economists	150	80	70
Political Scientists	*	*	*
Psychologists	150	100	50
Sociologists	*	*	*
Urban and Regional Planners	40	30	10
Other Social Scientists	20	10	10
Teachers	6,150	1,270	4,880
Adult Education Teachers	90	20	70
Agriculture Teachers	*	*	0
Art, Drama, Music Teachers	60	20	40
Atmospheric, earth, Marine	20	10	10
Biology Teachers	30	10	20

*Footnotes appear on last page of Table 2

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Business, Commerce Teachers	30	10	20
Chemistry Teachers	10	*	10
Coaches, Phys Ed Teachers	10	*	10
Economic Teachers	20	10	10
Education Teachers	*	*	*
Elementary School Teachers	2,630	430	2,200
Engineering Teachers	30	20	10
English Teachers	40	*	40
Foreign Language Teachers	60	20	40
Health Specialties Teachers	100	50	50
History Teachers	20	10	10
Home Economics Teachers	10	10	*
Law Teachers	20	10	10
Mathematics Teachers	30	10	20
Physics Teachers	10	*	10
Preschool, Kindergarten	360	80	280
Psychology Teachers	30	20	10
Secondary School Teachers	1,640	240	1,400
Sociology Teachers	30	20	10
Social Science Teachers Nec	40	20	20
Misc College and University	40	20	20
College, University Nec	320	120	200
Theology Teachers	20	10	10
Trade, Industrial Teachers	*	*	0
Teachers Nec, Exc Coll, Univer	450	100	350
Writers, Artists, Entertainers	1,030	370	660
Actors	10	*	10
Athletes and Kindred Workers	60	30	30
Authors	40	10	30
Dancers	40	10	30
Designers	200	60	140
Editors and Reporters	100	30	70
Musicians and Composers	130	20	110
Painters and Sculptors	90	40	50
Photographers	80	30	50
Public Relations Men, Writers	160	70	90
Radio, TV Announcers	30	20	10
Writers, Artists, Entertain Nec	90	50	40
Other Professional, Technical	4,710	1,570	3,140
Accountants	1,100	240	860
Architects	140	70	70
Archivists and Curators	60	30	30
Clergymen	170	-10	180
Religious, Exc Clergymen	70	-10	80
Farm Management Advisors	*	*	*

*Footnotes appear on last page of Table 2

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Foresters, Conservationists	20	10	10
Home Management Advisors	10	*	10
Judges	30	10	20
Lawyers	520	110	410
Librarians	340	60	280
Operations, Systems Research	200	150	50
Personnel Labor Relations	370	210	160
Research Workers, Nec	640	340	300
Recreation Workers	160	70	90
Social Workers	620	220	400
Vocational, Ed Counselors	260	70	190
Managers, Officials, Proprietors	11,270	4,090	7,180
Buyers, Sales, Loan Managers	2,050	810	1,240
Bank, Financial Managers	430	190	240
Creditmen	70	10	60
Buyers, Shippers, Farm Prod	-10	-20	10
Buyers, Wholesale, Retail	450	150	300
Purchasing Agents, Buyers, Nec	280	100	180
Sales Manager, Retail Trade	420	180	240
Sales Manager, Exc Ret Trade	410	200	210
Administrators, Pub Inspectors	1,380	420	960
Assess and Control, Loc Pub Admin	40	-10	50
Construction Inspector, Pub	40	*	40
Health Administrators	410	190	220
Inspectors, Exc Construct Pub	140	70	70
Officials, Admins, Pub	310	40	270
Postmasters and Mail Super	10	-20	30
School Admin, College	130	70	60
School Admin, Elem, Secondary	300	80	220
Other Managers, Officials, Props	7,840	2,860	4,980
Funeral Directors	70	10	60
Mgrs, Superintendants, Bldg	150	40	110
Office Managers, Nec	570	250	320
Officrs, Pilots, Pursers, Ship	10	-10	20
Officials of Lodges, Unions	30	20	10
Railroad Conductors	10	*	10
Restaurant, Cafe, Bar Mgrs	330	20	310
Other Mgrs, Administrators	6,670	2,530	4,140
Sales Workers	10,510	2,320	8,190
Advertising Agents, Salesmen	130	50	80
Auctioneers	*	*	*
Demonstrators	60	10	50
Hucksters and Peddlers	90	30	60

*Footnotes appear on last page of Table 2

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Insurance Agents, Brokers, Etc	750	220	530
Newsboys	-20	-40	20
Real Estate Agents, Brokers	320	20	300
Stock and Bond Salesmen	160	10	150
Sales Repres, Mfg	380	-10	390
Sales Repres, Wholesale Trade	890	320	570
Sales Clerks, Retail Trade	6,330	1,190	5,140
Salesmen, Retail Trade	850	340	510
Salesmen, Serv and Constr	570	180	390
Clerical Workers	33,860	5,960	27,900
Stenographers, Typists, Secre	14,460	2,770	11,690
Secretaries, Legal	390	90	300
Secretaries, Medical	580	150	430
Secretaries, Other	9,920	2,170	7,750
Stenographers	140	-20	160
Typists	3,430	380	3,050
Office Machine Operators	1,580	330	1,250
Bookkeeping, Billing Operators	140	10	130
Calculating Machine Operators	70	*	70
Computer, Peripheral Equip	320	200	120
Duplicating Machine Operators	40	10	30
Keypunch Operators	920	110	810
Tabulating Machine Operators	-20	-20	*
Other Office Machine Operators	110	20	90
Other Clerical Workers	17,820	2,860	14,960
Bank Tellers	790	160	630
Billing Clerks	500	160	340
Bookkeepers	3,320	220	3,100
Cashiers	2,340	440	1,900
Clerical Assist, Soc Welfare	*	*	*
Clerical Supervisors, Nec	200	50	150
Collectors, Bill and Account	30	-10	40
Counter Clerks, Exc Food	620	160	460
Dispatcher, Starter, Vehicle	100	30	70
Enumerators and Interviewers	50	*	50
Estimators, Investigators, Nec	510	100	410
Expeditors, Prod Controllers	310	60	250
File Clerks	910	*	910
Insurance Adjust, Exam	210	70	140
Library Attendants, Assistant	540	60	480
Mail Carriers, Post Office	220	60	160
Mail Handler, Exc Post Office	310	60	250
Messengers and Office Boys	50	-50	100
Meter Readers, Utilities	30	10	20

*Footnotes appear on last page of Table 2

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Payroll, Time Keeping Clerks	450	40	410
Postal Clerks	240	-40	280
Proofreaders	130	30	100
Real Estate Appraisers	50	10	40
Receptionists	760	80	680
Shipping, Receiving Clerks	390	-60	450
Statistical Clerks	520	40	480
Stock Clerks, Store Keepers	680	150	530
Teachers Aides, Exc Monitors	470	280	190
Telegraph Messengers	*	*	0
Telegraph Operators	0	-10	10
Telephone Operators	1,140	30	1,110
Ticket Station, Express Agents	170	40	130
Weighers	10	-10	20
Misc Clerical Workers, Nec	1,770	700	1,070
Craftsmen, Foremen, Kindred	7,920	1,070	6,850
Construction Craftsmen	4,340	1,120	3,220
Carpenters	1,070	370	700
Carpenters Apprentices	10	10	0
Brickmasons and Stonemasons	200	110	90
Brick, Stonemason Appren	*	*	*
Bulldozer Operators	40	20	20
Cement and Concrete Finishers	60	50	10
Electricians	490	220	270
Electricians Appren	20	20	*
Excavating, Grading, Mach Op	110	50	60
Floor Layers, Exc Tile Setters	40	20	20
Painters, Construction, Maint	450	60	390
Painter Appren	*	*	0
Paperhangers	60	30	30
Plasterers	30	10	20
Plasterer Appren	*	*	0
Plumbers and Pipefitters	530	210	320
Plumbers, Pipefitters Appren	20	20	*
Roofer and Slaters	100	60	40
Structural Metal Craft	110	70	40
Tilesetters	30	10	20
Foremen, Nec	970	-220	1,190
Metalworking Craftsmen Exc Mech	330	-510	840
Blacksmiths	0	-10	10
Boilermakers	0	-10	10
Heat Treaters, Annealers, Etc	-10	-30	20
Forgemen and Hammermen	0	-10	10
Job and Die Setters, Metal	60	10	50

*Footnotes appear on last page of Table 2

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Machinists	180	-200	380
Machinists Appren	*	*	*
Millwrights	10	-30	40
Molders, Metal	-10	-40	30
Molders Appren	*	*	0
Pattern and Model Makers	0	-40	40
Rollers and Finishers, Metal	10	*	10
Sheet Metal Workers, Tinsmiths	20	-60	80
Sheet Metal Appren	10	10	0
Tool, Diemakers	60	-100	160
Tool, Diemaker Appren	*	*	0
Mechanics, Repairmn, Installrs	1,810	590	1,220
Air Cond, Heating, Refrig	250	160	90
Aircrafts	50	30	20
Auto Accessories Instalr	*	*	0
Auto Body Repairmen	40	10	30
Auto Mechanics	450	70	380
Auto Mechanics Appren	*	*	0
Data Processing Mach Repairmen	100	90	10
Farm Implement	10	*	10
Heavy Equip Mech, Incl Deisel	410	50	360
Household Appliance Mechanics	150	80	70
Loom Fixers	0	-30	30
Office Machine Repairmen	30	20	10
Radio, Television Repairmen	150	70	80
Railroad, Car Shop Repairmen	20	*	20
Mechanics Exc Auto Appren	*	*	0
Other Mechanics and Repairmen	150	40	110
Printing Trade Craftsmen	420	*	420
Bookbinders	30	*	30
Compositors and Typesetters	120	-50	170
Electrotypers, Stereotypers	10	*	10
Engravers Exc Photoengravers	10	-10	20
Photoengravers, Lithographers	80	40	40
Pressmen and Plate Printers	180	30	150
Pressmen Appren	*	*	0
Printing Appren, Exc Press	-10	-10	0
Transportation, Pub Util Craft	300	160	140
Electric Powr Linemen, Cablemen	60	30	30
Locomotive Engineers	0	-10	10
Locomotive Firemen	-10	-10	0
Power Station Operators	0	-10	10
Telephone Installrs, Repairmen	230	150	80
Telephone Linemen, Splicers	20	10	10
Other Craftsmn, Kindred Wrkrs	720	-290	1,010

*Footnotes appear on last page of Table 2

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Bakers	80	-50	130
Cabinetmakers	50	*	50
Carpet Installers	40	30	10
Cranemen, Derrickmen, Hoistmen	60	10	50
Decorators, Window Dressers	130	10	120
Dental Laboratory Tech	50	10	40
Furniture and Wood Finish	0	-20	20
Furriers	*	*	*
Glaziers	50	30	20
Inspectors, Log and Lumber	*	*	*
Inspectors, Other	*	*	*
Jewelers and Watchmakers	-10	-10	*
Millers, Grain, Flour, Feed	*	*	0
Motion Picture Projectionists	*	*	*
Opticians, Lens Grinder, Polishr	80	30	50
Piano, Organ Tuners, Repairmen	0	-10	10
Shipfitters	20	*	20
Shoe Repairmen	-60	-80	20
Sign Painters and Letters	-10	-30	20
Stationary Engineers	80	-60	140
Stone Cutters, Stone Carvers	10	*	10
Tailors	110	-30	140
Upholsterers	20	-30	50
Craftsmen, Kindred Workrs, Nec	20	-90	110
Craft Appren, Nec	*	*	0
Operatives	9,540	-2,870	12,410
Operatives, Exc Transport	7,780	-3,190	10,970
Semiskilled Metalworking	620	-220	840
Drill Press Operatives	50	-20	70
Furnacemen, Smeltermen, Pourers	30	*	30
Grinding Machine Operatives	100	-10	110
Heaters, Metal	-10	-10	*
Lathe, Milling Mach Operatives	70	-30	100
Metal Platers	30	-10	40
Other Precision Mach Opr	80	10	70
Punch Stamping Press Opr	80	-30	110
Solderers	30	-100	130
Welders and Flame Cutters	160	-20	180
Semiskilled Textile	-40	-470	430
Carding, Lapping, Combing	-20	-40	20
Knitters, Loopers, and Toppers	10	-10	20
Spinners, Twisters, Winders	20	-120	140
Weavers	-20	-70	50
Other Textile Operatives	-30	-230	200

*Footnotes appear on last page of Table 2.

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Semiskilled Packing, Inspecting	1,860	-360	2,220
Checkers, Examiners, Etc, Mfg	750	-270	1,020
Graders and Sorters, Mfg	40	-20	60
Meat Wrappers, Retail Trade	200	50	150
Packer, Wrapper, Ex Meat, Produce	860	-120	980
Prod Grodr,Packer, Exc Fact, Farm	10	0	10
Other Operatives, Exc Transport	5,320	-2,170	7,490
Asbestos, Insulation Workers	20	10	10
Assemblers	960	-340	1,300
Blasters and Powdermen	-10	-10	*
Bottling, Canning Operatives	20	-10	30
Chainmen, Rodmen, Axmen Surveying	*	*	0
Clothing Ironers and Pressers	80	-80	160
Cutting Operatives, Nec	220	-30	250
Dressmaker, Seamstress, Exc Fact	250	20	230
Drillers, Earth	20	*	20
Dry Wall Installers, Lathers	10	10	*
Dyers	40	10	30
Filer, Polisher, Sander, Buffer	70	-50	120
Garage Workers, Gas Stat Atten	110	10	100
Laundry, Dry Clean Op, Nec	370	10	360
Meat Cutters, Butchers, Exc Mfg	180	*	180
Meat Cutters, Butchers	20	*	20
Milleners	10	*	10
Mine Operatives, Nec	-10	-20	10
Mixing Operatives	30	-20	50
Oilers, Greasers, Exc Auto	0	-20	20
Painters, Mfg Articles	30	-40	70
Photographic Process Workers	70	-10	80
Riveters and Fasteners	30	-10	40
Sailors and Deckhands	-20	-20	*
Sawyers	50	-10	60
Sewers and Stitchers	1,350	-550	1,900
Shoemaking Machine Opr	-110	-390	280
Stationary Firemen	50	-70	120
Winding Operatives, Nec	180	20	160
Misc Mach Operatives	950	-300	1,250
Operatives, Nec	350	-280	630
Transport Equipment Operatives	1,760	320	1,440
Boatmen and Canalmen	*	*	*
Bus Drivers	360	100	260
Conductors, Motormen, Urban Rail	10	*	10
Delivery and Routemen	400	90	310
Fork Lift, Tow Motor Opr	70	*	70
Motormen, Mine, Fact, Logging	0	*	0

*Footnotes appear on last page of Table 3

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Parking Attendants	40	*	40
Railroad Brakemen	10	*	10
Railroad Switchmen	10	*	10
Taxicab Drivers, Chauffeurs	230	20	210
Truck Drivers	630	110	520
Service Workers	17,310	2,180	15,130
Cleaning Service Wrkrs	3,210	580	2,630
Chambermaid, Maid, Exc Priv	520	80	440
Cleaners and Charwomen	940	30	910
Janitors and Sextons	1,750	470	1,280
Food Service Wrkrs	4,790	240	4,550
Bartenders	210	10	200
Busboys	10	-20	30
Cooks, Exc Private	930	20	910
Dishwashers	270	40	230
Food Counter, Fountain Workers	400	20	380
Waiters	2,040	30	2,010
Food workers, Nec, Exc Private	930	140	790
Health Service Wrkrs	5,040	1,350	3,690
Dental Assistants	460	110	350
Health Aides, Except Nursing	620	210	410
Health Trainees	30	-50	80
Lay Midwives	*	*	0
Nurses Aides, Orderlies	2,350	560	1,790
Practical Nurses	1,580	520	1,060
Personal Service Wrkrs	1,880	110	1,770
Airline Stewardesses	100	30	70
Atten, Recreation, Amusement	100	20	80
Atten, Personal Service, Nec	150	-10	160
Baggage Porters and Bellhops	0	-10	10
Barbers	-60	-210	150
Boarding, Lodging Housekeepers	-10	-20	10
Bootblacks	-10	-10	*
Child Care Workers, Exc Private	280	70	210
Elevator Operators	-10	-70	60
Hairdressers, Cosmetologists	920	220	700
Housekeepers, Exc Private	220	*	220
Personal Service Appren	*	*	*
School Monitors	110	60	50
Ushers, Recreation, Amusement	10	*	10
Welfare Service Aides	80	40	40
Protective Service Wrkrs	1,800	370	1,430
Crossing Guard, Bridgetenders	100	-10	110
Firemen, Fire Protection	350	150	200

*Footnotes appear on last page of Table 2

Table 2 (Continued)

Occupational Title	Net Demand	Openings Due To Growth	Openings Due To Death and Retirement
Guards and Watchmen	870	80	790
Marshals and Constables	*	*	*
Policemen and Detectives	420	140	280
Sheriffs and Bailiffs	60	10	50
Private Household Wrkrs	620	-440	1,060
Child Care Workers	120	-80	200
Cooks, Private	30	-20	50
Housekeepers, Private	110	-70	180
Laudresses, Private	0	-10	10
Maids, Servants, Private	360	-260	620
Laborers, Except Farm	1,610	140	1,470
Animal Caretakers, Exc Farm	40	20	20
Carpenters' Helpers	10	*	10
Constr Labr, Exc Carpenter Help	290	30	260
Fishermen and Oystermen	-10	-40	30
Freight, Material Handlers	200	-10	210
Garbage Collectors	50	20	30
Gardenrs, Groundkeepr, Exc Farm	350	60	290
Longshoremen and Stevedores	-10	-30	20
Lumbermen, Raftsmen, Woodchopprs	-10	-10	*
Stock Handlers	580	200	380
Teamsters	*	*	*
Vehicle Washr, Equip Cleaners	50	-20	70
Warehousemen, Nec	10	-30	40
Other Laborers	60	-50	110
Farmers and Farm Workers	70	-270	340
Farmers and Farm Managers	70	-110	180
Farmers (Owners and Tenants)	10	-140	150
Farm Managers	60	30	30
Farm Laborers, Farm Foremen	0	-160	160
Farm Foremen	10	-10	20
Farm Laborers, Wage Wrkrs	-10	-130	120
Farm Laborers, Unpaid Family	0	-20	20
Farm Laborers, Self-Empl	*	*	*

*Less than .5 openings
May not add to total because of rounding
NEC - Not elsewhere classified